### PATENT COOPERATION TREATY

From the INTERNATIONAL BUREAU

MOTHICATION OF TRANSMITTAL
OF COPIES OF TRANSLATION
OF THE INTERNATIONAL PRELIMINARY REPORT
ON PATENTABELITY
(CHAPTER I OX CHAPTER II
OF THE PATENT COOPERATION TREATY)

(PCT Rules 44bis 3(c) and 72.2)

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Applicant's or again's file reference FP04DC12PC

IMPORTANT NOTIFICATION

GOTO&C

International application No. PCT/JP2004/015882

International filing date (daymonth/year) 20 October 2004 (20.10.2004)

Applican

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DAICEL CHEMICAL INDUSTRIES, LTD. et al

- 1. Transmittal of the translation to the applicant.
  - The international Bureau transmits herewith a copy of the English translation of the international preliminary report on patentiability (Chapter I).
  - The international Bureau transmits herewith a copy of the English translation of the international proliminary report on patentiability (Chapter II).
- 2. Transmittal of the copy of the translation to the designated or elected Offices.

The international Eurean notifies the applicant that copies of that translation have been transmitted to the following designated or elected Offices requiring such translation:

None

The following designated or elected Offices, having weived the requirement for such a transmittal at this time, will receive copies of that translation from the international Bureau only upon their request:

AE, AG, AL, AM, AP, AT, AU, AZ, BA, BB, BC, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DY, CM, DZ, EA, EG, CEE, EG, EF, ES, FI, CB, GO, GE, CH, GM, HF, IU, DI, LI, II, S, KE, KG, KP, KF, NZ, LC, LK, LT, LS, LT, LU, LY, MA, MD, MG, MK, NN, MW, MZ, NA, NI, NO, NZ, OA, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UB, SU, ZV, CV, NY, U2, AZ, MZ, WS

3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any america to the international proliminary report on patentiability (Chapter II).

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned within the applicable same limit (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The international Bureau of WIPO 34, chemin des Colombates 1211 Genova 20, Switzerland Anthorized officer

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Form PCT/IB/338 Gamuary 2004)

### PATENT COOPERATION TREATY

# **PCT**

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter I of the Patent Cooperation Treaty)

### (PCT Rule 44bis)

Applicant's or agent's file reference FP04DC12PC	FOR FURTHER ACTION	See Hem 4 below		
International application No. PCT/JP2004/015882	International filing date (day/month/year) 20 October 2004 (20.10.2004)	Priority date (day/montle/year) 05 November 2003 (05.11.2003)		
International Patent Classification (8th edition unless older edition indicated) Sea relevant information in Form PCT/ISA/237				
Applicant DAICEL CHEMICAL INDUSTRIES	, LTD.			

1.	This international preliminary International Searching Author	report on parentability (Chapter I) is issued by the International Bureau on behalf of the wity under Rule $44$ bts. $1(a)$ .
3.	This REPORT consists of a to	tal of 7 sheets, including this cover sheet.
	in the attached sheets, any refeto the international preliminar	prepare to the written opinion of the International Searching Authority should be read as a reference prepart on patentability (Chapter I) instead.
3.	This report contains indication	is relating to the following items:
	Box No. I	Basis of the report
	Box No. II	Priority
	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
	Box No. IV	Lack of unity of invention
	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
	Box No. VI	Certain documents cited
	Box No. VII	Certain defects in the international application
	Box No. VIII	Certain observations on the international application
4.	The International Bureau will cant, except where the applicant date (Rule 44b/s .2).	ornmanicate this report to designated Offices in accordance with Rules 44bir.3(c) and 93bir.1 but makes an express request under Article 23(2), before the expiration of 30 months from the priority

	Date of issuance of this report 27 July 2006 (27.07.2006)
The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 29, Switzerland	Authorized officer Masashi Honda
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From the IPTERNATE				RATION TRE	· · · · · · · · · · · · · · · · · · ·
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To:					PCT PCT
				interna	RITTEN OPINION OF THE TIONAL SEARCHING AUTHORITY
					(PCT Rule 43bis 1)
				Date of mailing (dep/month/eser)	
	ayent's filoxetere	nce		FOR FURTHER	ACTION
FP04D0					See paragraph 2 below
	application No. 2004/015	5882	20.10.2004	(day/manth/year)	Priority date (deprimental/year) 05.11.2003
			nutional classification a	4380	1
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2 BUR.  M a r  fotorrethand fi this la  H this written FCTM. For ta  3. For tan	Box No. II  Box No. III  Box No. IV  Box No. VI  Box No. VII  Box No. VIII  Box No. VI	Priority Non-establis Lack of unit; Reatoned strangelicability Certain defect Certain defect Certain description of the continuous aprelimity Planating to clause Authority which also we wide also we, where approper the expiration of Form PCT/ISA softes to Form PCT/ISA	opinion with re, of inversion with re, of inversion necessary and a state of a state of the stat	tand to novelty, invent  L(an(2) with regard to as supporting such seat  blication and application white, this cypielou with then this does not app the International Bure copinion of the IFEA  copin	novely, in-emive step or industrial enant.  I be considered to be a written opinion of t by where the applicant choices an Authority oft was useder Knife Goldrich plut written policy as useder Knife Goldrich plut written policy to the property of the control of the applicant is invited to subsuit to the IPEA.

### WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No. PCT/JP2004/015882

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8	ica No. I	Busis of title opinion	
1	With filed	regard to the language, this opinion has been established on the basis of the inter- volens otherwise indicated under this item.	national application in the language in which it was
		This opinion has been established on the basis of a translation from the original is	nguage into the following language
			shed for the purposes of intermational semen (under
		Role 12.3 and 23.1(b)).	
2.	With	regard to any medicolide and/or unino acid sequence disclosed in the inter- ction, this opinion has been established on the basic of:	national application and necessary to the claimed
	٤.	type of muorial	
		a sequence listing	
		labic(a) related to the acqueuce listing	
	ь	format of material	
		is written Corpus	
	l l	in computer rendable form	
	ç. :	time of Along/fornishing	
		contained in the international application as filed.	
	Ī	Aird together with the international application in computer readable form.	
	Ĩ	furnished subsequently to this Authority for the purposes of search	
X.	,	in addition, in the case that more than one version or copy of a sequence listing transition, the required statements that the information in the aubsequent or additional filed or does not go beyond the application as filed, as appropriate, were increased.	and/or table(s) relating thereto has been filed or mal copies is identical to that in the application as
k.	Additio	nal comments	
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# WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No. PCT/JP2004/015882

bor No. IV Lack of unity of invention
In response to the invitation (Form PCT/ISA/206) to pay additional fees the applicant base
swid additional fees
puid additional fees under protest
not paid additional fee;
<ol> <li>This Authority found that the requirement of unity of invention is not complied with and chose not to invite the applicant to additional feet.</li> </ol>
3 This Arthority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is
complied with
not complied with for the following reasons:
A compound having the partial structure capable of forming a polybenzoxazole insulating film is known to those skilled
in the art (JP 2003-156844).
Thus, the common technical feature of the various compounds (options)
described in Claim 1, "a compound having the partial structure <aromatic ring-<="" th=""></aromatic>
N=C> and capable of forming a polybenzoxazole insulating film," cannot be
called a special technical feature (a technical feature showing a contribution that
the invention as a whole makes to prior art).
Consequently, there is no technical relationship among the various
compounds (options) described in Claim I involving a "special technical feature," and the requirement of unity of invention is not met.
and the requirement of unity of investight is not free.
Consequently, this opinion has been established in respect of the following parts of the international application
C ali peta
Use parts relating to claims Nos. 1 (in part)
The Make I

#### WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No PCT/JP2004/015382

Statement				************
Novelty (N)	Claims			YE
	Claims	_1	 	NO.
Investive step (IS)	Claims			YE
	Claims	1	 	 NC
Industrial applicability (IA)	Claims	1		 YE
	Claims			NO

Document 1: JP 62-13406 A (EniRicerce SpA), 22 January 1987

Claim 1 does not appear to be novel or to involve an inventive step over document 1 cited in the ISR. Document 1 describes 3,3'-diaminobenzidine-N,N',N'',N'''-tetra(benzilidene),

# WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/JP2004/015882

		1 101/07	(2004)013662
Bax No. VI Certain documents cited			
i. Corfain published documents (Rule 436s.1 and	70.10)		
Application No. Patent No.	Publication date (day/month/year)	Plling date (day/month/year)	Priority date (valid classi) (dep/montis/sess)
JP 2004-292348 A	21.10.2004	26.03.2003	
[X, E]			
JP 2004-307804 A	04.11.2004	18.09.2003	26.03.2003
[X, E]			

Non-written disclosures (Ruie 43bis.1 and 70.9)

Kind of non-written disclosure	Date of non-written disclosure	Onte of written discionare mforcing to mon-written discionare
	(day/mosth/year)	(cicy/month/year)

But No. VIII

Curtain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully suspected by the description, are made:

Of the "compounds of Formula (1) having 3 or more amino groups which may be protected by protective groups" which have a special technical feature, only a "compound wherein  $R^2$  and  $R^2$  are alkylidene groups without polar groups of a groups or monosubstituted amino groups without polar groups, and  $R^2$ ,  $R^2$ ,  $R^2$  and  $R^2$  are bound to the 1, 2, 4 and 5 positions of the benzene ring or the  $3,3^\circ$ , 4 and  $4^\circ$  positions of the biphenyl ring" is described by specific manufacturing and use examples in the specifications, and other compounds (hereunder called "undisclosed compounds" are not described by specific manufacturing and use examples.

Moreover, these undisclosed compounds are not common technical knowledge to those skilled in the field of polybenzazole insulating films.

In addition, it does not seem possible that a compound wherein R\*, R\*, R\* and R\* are not in ortho positions relative to one another would be able to react with a carboxylic acid to form a polybenzazole insulating film, and the structure and properties of a polybenzazole insulating film obtained with the amino groups in different positions on the aromatic ring would of course he different.

Differences in the presence or absence, numbers, types, binding positions and the like of heirro atoms in the polar groups and aromatic ring would also change the solubility in the solvent.

Thus, it cannot be assumed that the undisclosed compounds have equivalent solubility and polybernzazole insulating film formability to the "compound wherein R\* and R\* are alkylidene groups without polar groups (isopropylidene, cyc), R\* and R\* are alkylidene groups without polar groups or monosubstituted amino groups without polar groups, and R\*, R\*, R\* and R\* are abound to the 1, 2, 4 and 5 positions of the benzene ring or the 3, 3\*, 4 and 4\* positions of the biphenyl ring\*.

Consequently, the undisclosed compounds of the "compounds of Formula (1) having 3 or more aminor groups which may be protected by protective groups" are not adequately supported by the specifications.

Since undisclosed compounds of the "compounds of Formula (1) having 3 or more amino groups which may be protected by protective groups" are inadequately supported by the specifications, no meaningful opinion can be given resgarding novelty, inventive step and industrial applicability.